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network layer, for processing, and automatically passes the packets output by the operating system's network layer to the network interface, for sending to the network.

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6. The API of claim 1, further comprising a primitive for creating said first and a second data structures mapped both to said operating system and said network application, wherein:

allocated buffers to be passed from the operating system to the network application are referenced via respective pointers within said first data structure, said first data structure pointers being inserted into said first data structure by said operating system, said first data structure pointers being removed by said network application; and

deallocated buffers to be passed from said network application to said operating system are stored in a buffer and referenced via respective pointers within said second data structure, said second data structure pointers being inserted into said second data structure by said network application, said second data structure pointers being removed by said operating system.

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9. The API of claim 1 wherein other network applications do not access a buffer from the time said network application removes a pointer to said buffer from said first data structure and inserts a pointer to said buffer into said second data structure.

10. The API of claim 9, wherein each buffer contains an identifier of a network application having exclusive use of the buffer.

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16. The API of claim 6 wherein other network applications do not access a buffer from the time said network application removes a pointer to said buffer from said first data structure and inserts a pointer to said buffer into said second data structure.
